

REMARKS

Claims 1-42 are pending in the present Application with Claims 25-40 and 42 withdrawn from consideration. No claims have been canceled, claim 1 has been amended, and no claims have been added, leaving Claims 1-24 and 41 for consideration upon entry of the present Amendment.

Claim 1 has been amended to recite “a nanosized dispersion agent that is electrically non-conducting.” Support for this amendment can at least be found in Paragraph [0036] as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Elections/Restrictions

Applicants provisionally elect to prosecute the set of claims, Claims 1-24 and 41, that the Examiner designated as directed to Group I. Therefore, Claims 25-40 and 42 are withdrawn from consideration.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-17, 20-24 and 41 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by WO 97/15935 to Shibuta (“Shibuta”). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

The present claims are directed to a composition comprising, *inter alia*, a polymeric resin, a nanosized dispersion agent that is electrically non-conducting, and carbon nanotubes.

In making the § 102(b) rejection, the Examiner has stated that Shibuta teaches a “transparent electrically conductive film comprising an organic or inorganic matrix having carbon microfibers and an electrically conductive metal oxide powder dispersed therein.” (Office Action dated October 11, 2006 at page 3) The Examiner also states that Shibuta

“describes the conductive metal oxide particles as including titanium oxide.” (Office Action dated October 11, 2006 at page 4)

Applicants respectfully submit that Shibuta requires electrically conductive metal oxide particles rather than an electrically non-conductive nanodispersion agent as required by the present claims. Shibuta is directed to a white or colored electrically conductive polymer composition comprising “electrically conductive white powder (such as TiO₂ powder coated with antimony-doped tin oxide, or aluminum-doped zinc oxide powder).” Shibuta discloses that “the electrically conductive white powder can be (1) a white powder which itself is electrically conductive, or (2) a non-conductive white powder the surface of which is coated with a transparent or white electrically conductive metal oxide (referred to as a surface coated conductive white powder).” (Shibuta at page 7, ll. 29-34) Shibuta further discloses that “[e]xamples of a surface-coated conductive white powder (2) are nonconductive white powders such as titanium oxide....” (Shibuta at page 8, ll. 9-10) Shibuta also discloses methods of surface coating the non-conductive white powder. (Shibuta at page 8, line 21 to page 9, line 8)

In contrast to the electrically conductive white powder disclosed by Shibuta, the present claims require a nanodispersion agent that is electrically non-conductive. The present specification discloses that “[t]he nanosized dispersion agents are electrically non-conducting.” (¶ [0036]) Applicants respectfully disagree that the Shibuta describes titanium oxide as electrically conductive as asserted by the Examiner. Instead, Shibuta expressly states that titanium oxide is an example of a non-conductive powder that must be coated with a conductive surface. (Shibuta at page 8, ll. 9-10) Because Shibuta fails to teach all elements, Shibuta cannot anticipate the claims as presently amended. Reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 4-8 and 11-14 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,184,280 to Shibuta (Shibuta ‘280) in view of Applied Nanotech Inc. (ANI) webpage (<http://www.applied-nanotech.com/cntproperties.htm>). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Shibuta '280 contains substantially the same disclosure as Shibuta's PCT publication WO97/15934 described above and discloses an electrically conductive white powder. (Shibuta '280 Abstract) Shibuta '280 fails to disclose a nanodispersion agent that is electrically non-conductive. The undated ANI website fails to remedy the deficiency of Shibuta '280 because ANI fails to disclose a nanodispersion agent that is electrically non-conductive. Because Shibuta '280 and the ANI website fail to teach all elements, the combined references cannot render obvious the present claims.

Applicants respectfully submit that the undated ANI website is unavailable as prior art under §§ 102(a) or (b) because the website does not contain a date. MPEP § 2128 provides that prior art disclosures on the Internet are considered to be publicly available as of the date the item was publicly posted. Absent evidence of the date that the disclosure was publicly posted, if the publication itself does not include a publication date (or retrieval date), it cannot be relied upon as prior art under 35 U.S.C. §§ 102(a) or (b). Applicants further submit that the Examiner has provided no evidence that the ANI website discloses single wall carbon nanotubes as of the filing date of the present application.

There is also no motivation to modify Shibuta '280 because Shibuta '280 teaches away from the present claims. One of ordinary skill in the art would understand Shibuta '280 to teach that the addition of electrically conductive particles can improve the conductivity of a polymer. In direct contrast, the present application discloses the unexpected result that the addition of electrically nonconductive nanodispersion agents can improve the conductivity of a polymer. (Figure 2) Because there is no motivation to modify Shibuta '280 and there is no reasonable

expectation of success, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

Reconsideration and withdrawal of this rejection are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

CANTOR COLBURN LLP

By 

Chad A. Dever
Registration No. 56,340

Date: December 11, 2006
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002
Telephone (860) 286-2929
Facsimile (860) 286-0115
Customer No.: 23413